DOCUMENT RESUME

ED 058 440 08 VT 014 531

AUTHOR	Soong, Robert K.; And Others
TITLE	Cost-Benefit Considerations of New Careers Programs. Career Options Research and Development.
INSTITUTION	YMCA of Metropolitan Chicago, Ill. Career Options Research and Development (CORD).
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C. Division of Comprehensive and Vocational Education.
BUREAU NO	BR-7-0329
PUB DATE	Sep 71
GRANT	OEG-0-8-7-0329-3694(085)
NOTE	17p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Community Benefits; *Cost Effectiveness; Disadvantaged Groups; Educational Benefits; *Human Services; Job Training; *Models; Program Costs; Program Effectiveness; *Program Evaluation; *Research Needs; Vocational Education
IDENTIFIERS	New Careers

ABSTRACT

Since the early 1960's, new programs have been developed to prepare poor people for jobs in hospitals, schools, social agencies, and community centers offering human services. To ascertain the cost effectiveness of these programs the Career Options Research and Development (CORD) Project focused on the need for cost and benefit studies that recognize both quantifiable and non-quantifiable variables. It is noted that while ways can be found to average out specific variables, it is not yet possible to measure the variance in relationships between and among variables. Also discussed in terms of cost-benefit analysis are the investment model, the human capital model, and the allocation of resources model. Further areas for research studies are suggested in order to answer questions such as: Under what conditions and in what fields will horizontal mobility have more pay-off than vertical mobility? (JS)

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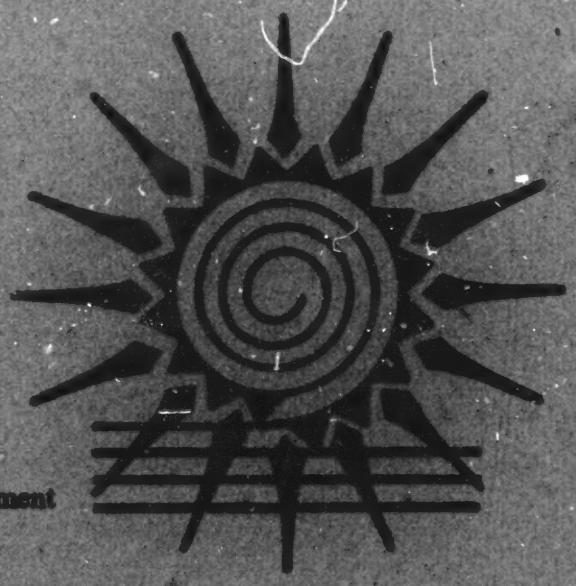

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CAREER OPTIONS RESEARCH AND DEVELOPMENT, Project No. 7-0329, was supported by the U.S. Office of Education, National Center for Educational Research and Development, Department of Health, Education and Welfare, under Section 4(c) of the Vocational Education Act of 1963, in a grant to the YOUNG MEN'S CHRISTIAN ASSOCIATION OF METROPOLITAN CHICAGO, 19 South LaSalle Street, Chicago, Illinois 60603.

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as a supporting Advisory Document to the Final Report for the three-year project, 1968-1971.

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COST-BENEFIT CONSIDERATIONS OF NEW CAREERS PROGRAMS

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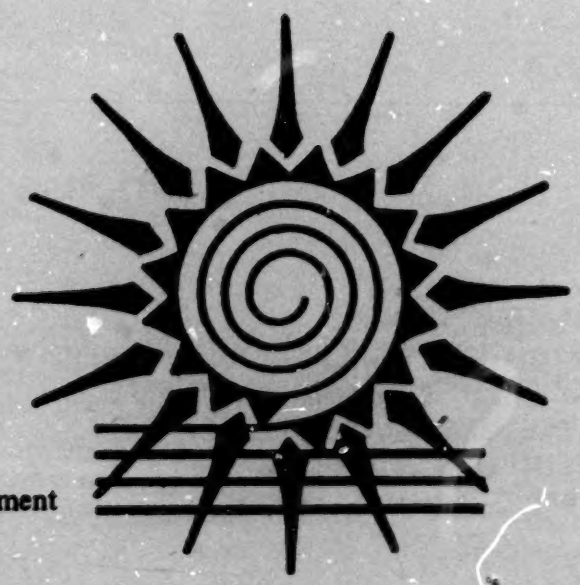

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INTRODUCTION

Since the advent of New Career programs, interest has been shown in evaluative and analytical techniques which would indicate the economic value of these programs. Application of such techniques as Cost-Benefit and Cost-Effectiveness Analysis to education, particularly college and university programs, have yielded interesting results.[1] Similar applications to employment training programs have indicated directions for further study.[2] Since a number of economic variables can be identified in New Career programs, it has been possible to speculate on their advantages vis-a-vis alternatives and to hope that further analysis would disclose findings as useful as those in the education and training studies. In addition to measuring New Career programs against other approaches to the same goals, it would be useful to have tools to assess the effects of variations in design within the genre of New Careers programs.

Without going into a complete history of New Careers programs, a brief resume will provide some background for those not familiar with them. During the early 1960s, the concept began to evolve that poor people could find employment and a chance for advancement in the understaffed hospitals, schools, agencies, and community centers offering "human services." The New Careers Development Center (New York University), the National Institute for New Careers (University Research Corporation, Washington), and the National Association of New Careerists were among the organizations which contributed to the evolution of the idea. By the late 1960s, full sets of objectives and guidelines had been formulated and written into major legislation as well as heard in the demands voiced by paraprofessionals. Governmental impetus came from several sources, specifically Manpower (Department of Labor), Poverty (Office of Economic Opportunity) and Vocational Education (HEW). Objectives were identified as occupational, economic, educational. In the social and human services, concern expressed by both professionals and consumers for the expansion and improvement of services also focused attention on the training and hiring of paraprofessionals.[3]

Having some acquaintance with both New Careers models and Cost-Benefit Analytical techniques, Career Options decided to develop an approach which would at least point to fruitful areas of study. We have been guided by two major questions, the first being: Is it worth it? Is it worth it to participants to expend the time and effort to acquire training for work in the social and human services? Is it worth it for schools and colleges to develop new curricula, employ teachers, and otherwise invest in opening up

programs in human services? Is it worth it to employers to put up costs of training, hiring, released time, and so on? Is it worth it to the federal, state, or local governments to provide funds for new careers programs? What is the payoff to these various organizations and individuals? Who benefits? Considering alternatives, is the return sufficiently attractive to warrant further investment?

The second question was: How can we find out if it is worth it? Is a Cost and Benefit or Effectiveness formulation the best way to approach it? Do we know enough about New Careers variables to use an economic model? What scope of study would be both feasible and useful?

Objectives of New Careers Programs

To evaluate New Careers programs as a means to a set of goals, we will first want to specify those goals. The following are drawn from a variety of sources. Most if not all of them are present in each of the New Careers programs of our acquaintance. (Sometimes they are stated negatively as "problems" to be solved.)

1. To relieve the persistent unemployment and underemployment of the disadvantaged;
2. To end dependency on public aid and unemployment compensation; to take people "where they are" and provide whatever training and education are necessary to realize their career potential;
3. To develop the capacity of the educational system to better meet occupational needs; to update and expand vocational education in public schools and colleges; to develop in the junior colleges a unique role distinct from preprofessional training;
4. To provide the basis (task analysis) for career-relevant education; to elicit the cooperation of colleges along with human services employers toward joint goals; to provide coordinated college and on-the-job training programs;
5. To provide trained personnel for the expansion of social and human services to meet unmet needs;
6. To initiate change in the services tendered by current social and human services; to meet consumer demands for non-paternalistic services; to involve community people in the provision of service;
7. To alleviate the shortage of manpower; to enable professional workers to put their own skills and time to best use by relieving

them of tasks and duties requiring less skill;

8. To create a rational work situation with a reorganized structure that includes career ladders, job descriptions, salary commensurate with duties, evaluation, and fringe benefits; to provide for best use of professional and paraprofessional staff; to reward competency (rather than credentials).

It can be assumed that a complete "functioning model" would achieve (on a local scale) the above objectives. So many difficulties have arisen in implementing various program aspects, however, that there may well be no such models. We may hypothesize that more than "cultural lag" or "resistance to change" is responsible for resistance in many quarters to implementation of the model, and that, in the language of our first question, it *isn't* worth it to some of the agents required to cooperate in a New Careers venture.

Most New Careers programs are training "minority group" (mostly black) women (ages late-twenties through forties) for entry-level, low-paying positions in the human services. They ask basically that persons traditionally excluded from patterns of upward mobility be "brought into the system." Drop-out rates, health and family problems, illiteracy, and lack of adequate child-care provisions are some of the difficulties associated with New Careers efforts. Some advocates use the term "high risk" as an implicit warning that the costs, at least initially, will outweigh the measurable benefits. There is, nevertheless, widespread optimism and a conviction that it is indeed worth it.

Studies on New Careers Programs

Most of the evaluative studies done thus far of New Careers programs have demonstrated positive effects but have not attempted to compare varying programs or to calculate an econometric result. There are a few precedents, however, which point to the feasibility of performing at least limited studies. The Chicago Board of Education studied their Health Occupations Careers Program using average cost of training against amount of federal income tax paid by trainees following their entry into the job market. For example, costs for training surgical technicians averaged $835 per trainee. Graduates earned approximately $500/mo. and "paid back" the cost of training in income taxes within fourteen months.[4] A study performed at the University of Minnesota used estimates of direct project costs ($5,400 per trainee) for training welfare recipients to become teacher aides. The "public benefit" of saving in welfare, unemployment compensation, and welfare administration, plus income to the government in taxes, showed a return of

$1.59 for every $1.00 expended.[5] In both cases, it was shown that if you take presently unemployed people and get them into jobs, and provided that you place a good proportion of trainees, there is payoff to the government and, it is implied, to the trainees themselves. While these findings are useful, many more are needed to provide arguments to the many agents who must be involved in New Career programs--for example, to persuade employers to develop aide positions or career ladders.

TYPES OF VARIABLES IN NEW CAREERS

The basic data available on New Career programs include some inputs that would be needed for a Cost and Benefit model.

1. There are quantifiable variables which can be expressed in economic terms: Training costs (salaries, equipment, materials, facilities, foregone benefits, tuition and books, transportation, clothing, babysitting); hiring and employment costs (salaries, administrative and supervisory time, additional auxiliary personnel, released time for further education, on-job training costs, fringe benefits, turn-over etc.); job restructuring (staff time, materials, changes in salary schedules, fees or reimbursement for change in services offered); taxes and capital changes; maintenance costs of untapped human resources (public aid, some police and court costs); efficiency of allocation of human resources; inflation/unemployment costs to society; productivity.

2. There are quantifiable variables for which expression in cost and benefit terms is questionable but which can be rated or scaled or otherwise included in the formula: Number or proportion of unemployed people entering training, completing training, placed on jobs; average units of training received (hours, credits); time requirements; employed people entering training, completing training, receiving salary increases, moving to other jobs; socioeconomic factors (parental education, housing standards, standard of living); family impact (children's achievement in school attributed to trainees' education, time devotedto family, foregone leisure); job satisfaction (paraprofessionals, professionals, consumers); staff mix; community relations effort.

3. Finally, there are non-quantifiable variables believed to be important: Status or prestige of employer and of college; qualitative changes in service provided; staff morale; costs of dependency (psychic costs, standard of living, discrimination); changes in attitudes (toward school, employment, supervision, authorities); changes in use of leisure time; ability to communicate; improved opportunity structure; value of work and study habits (reliability, efficiency, time orientation); inter-family relationships

and community activities; contribution to cultural development and to democracy.

For specific programs, we can identify those quantifiable variables which are most apparent and usually can locate them on the cost and/or benefit side of the ledger. We can specify the perspective, whether private or social, and can find ways to average out specific variables. We can not as yet state the nature of, or measure the variance in, relationships between and among variables. A major difficulty is presented by the small size of such programs (number of trainees enrolled at any time). The further difficulty of follow-up is shared by other education or training studies.

MODELS OF ECONOMIC ANALYSIS

In economic analyses of new careers, as in any research, the basic tool is comparison. It may be comparison of a factor before and after an intervening event, in which case time itself is an important consideration. Or it may be comparison of two or more distinguishable classes at a point in time. A still conceptually simple design would compare the changes within and between classes over a specified interval of time.

The basis question to be answered is: What classes or processes are being compared and along what variable? The reason the research is being done and the perspective from which the research is generated are separate concerns, but ones which greatly affect the nature of the research. Unlike basic research, economic analysis is usually performed in order to guide decision-making, particularly as those decisions will regulate the amount and type of further economic investment. Such analyses, however, rarely constitute the only criterion for decision-making, nor should they.

The model most commonly applied to education-related analysis is the Investment Model. Inputs, immediate and deferred, are viewed as an investment to be discounted against the differential pay-offs or rates of return over a period of time. From a private (or individual) perspective, the payoff is measured as salary, lifetime earnings, wage profiles, or the amount of time needed for the incremental earnings to compensate for foregone benefits. Social, as opposed to private, payoff might be measured as subsequent income to the government in taxes, saving in welfare or other maintenance costs, and so on.[6]

The Investment Model has been used to compare benefits to women and men, black and white, vocational and academic training, different schools, or to those receiving a given educational or training experience as compared to those who are not. In reference to New Careers programs, we are

addressing the very group that all previous studeies have shown can expect the least payoff or rate of return, namely mature black women.

Difficulties with the investment approach inevitably arise with the time element. It is impossible to project lifetime earnings, for example, since all New Careers programs are of recent vintage (started in the late 1960s), and clear precedents do not exist. The positions occupied by New Careerists are new and still evolving. Human Services fields are undergoing change, impelled more by social than by technological forces, and have not yet devised ways of measuring the quality of services provided, with or without the addition of paraprofessionals to their staffs. Since the greatest number of human service paraprofessionals are employed in agencies, departments, and organizations funded by the federal and state governments, the opportunity structure is conditioned by more than the need for service or the adequacy of job performance. Whether from the perspective of the individual, the employer, the college, or the government, it is easier to estimate cost inputs than it is to define and price out the benefits of New Careers programs.

The Human Capital Model is a variation on the Investment Model. Like such natural resources as oil fields or agricultural lands, tapping human resources produces a high yield but only after considerable development efforts. As Benson points out, however, untapped human resources are unlike natural resources in requiring maintenance costs of society–living expenses (welfare, health care) and protection (police, courts, custody).[7]

With a Human Capital approach, we would be tempted to look at the education/training received as more than an investment. We would be led into considering the consumption value of education, the many unforeseen and perhaps inestimable benefits, both private and social–the value of social mobility, the benefit to offspring and to future generations, the reduction in wasted lives.

Another closely related model could be designated as the Allocation of Resources Model. Assuming a finite amount of time and money, the study would seek to maximize returns through choice of the best option among a field of options. From a less theoretical intent, we could incorporate Systems and Planning models to specify the constraints and scope of options. Here the criterion might arise out of projections of manpower needs at selected future times.

Economic studies of this sort are not well geared to New Career programs. While we can state objectives of New Careers programs, it is still difficult to

generate the research and to locate sufficient data to compare the relative effectiveness and efficiency of alternatives to New Careers. Toward the objective of providing trained personnel for the expansion of social and human services, for example, alternatives include: better utilization of existing personnel; retrieval of trained personnel now engaged in other pursuits (housewives, teachers, and so on); recruitment from non-traditional sources (veterans, for example); generating new service patterns (group rather than individual practice); subsidization at various points in the manpower supply system; or increasing access to existing services, as well as the New Careers prescription of hiring paraprofessionals.[9] Before we could attempt to evaluate these alternative, we would need an operational statement of the objective. In some fields of human services, there is no agreement on projections of the numbers and types of personnel who might be needed and/or afforded. Within the field of social work or social welfare, for example, HEW's Task Force on Social Work Education and Manpower forecast needs of 100,000 additional professionally trained social workers for the year 1970 in government programs alone. The Welfare Council of Metropolitan Chicago and the Illinois Board of Higher Education questioned the Task Force's findings. Their 1968 study indicated that such vacancies could not exceed 15,000 nationally. As Zimbalist and Anderson point out "... a sharp distinction must obviously be made between latent demand and manifest demand for personnel. The potential unmet need for social services is one thing; the actual (budgeted) need is obviously something else."[10]

The last model which we will note here has not found extensive use in education or employment-related studies. The Cash Flow Model, while conceptually attractive, is difficult to apply at the consumer/employee level. The necessary limits tend to become arbitrary and the results too finely differentiated to be useful. As opposed to Planning models, a Cash Flow approach does not have the advantage of being grounded in the reality of accounting rather than budgeting processes.

SUGGESTED STUDIES

While, as has been implied, it would be extremely difficult (and unreliable) to attempt to evaluate total programs or the New Careers approach as a whole by the means of cost-benefit and related approaches, it is feasible to contemplate studies of limited scope which would test the effects of variation in design. The findings of such limited-scope studies could provide much needed guidance to program planners and participants.

One such study might examine the site of course delivery. Colleges now offer courses on campus, in effect bringing the class to the instructor. Enrollees who are employed may be granted released time by their employers to attend classes on campus. Cost to employers is, of course, reduced if courses are offered at times that do not conflict with work schedules.

Colleges also offer accredited courses off-campus, bringing the instructor to the class. If a large number of enrollees work for the same employer, the class may meet on the job site, and enrollees' time and transportation costs are greatly reduced. A cost-benefit study could demonstrate which design is cheaper and/or the minimum class size needed to sustain either design on the benefit side of the ledger. Absentee and dropout rates would affect cost factors in either case. If matched classes could be initiated or sufficient data gathered on ongoing programs, it might even be possible to compare the quality of learning per dollar expended.

A second study could add some fuel to the debate over whether a college or an employer can provide "better" training for specific types of positions. It is generally argued that the credit/degree earned in college-sponsored training increases the number of options open to trainees, both for further education and for career advancement. On the other side, it is argued that employer-sponsored training is more "relevant" to the job and equips employees to advance faster through their better job performance.

Some cooperative programs attempt the compromise of having a college accredit training provided by the employer, using professional staff as instructors. Another more prevalent approach is through practicum experience wherein credit is given for on-the-job experience, usually combined with some on-campus course work and under the joint direction of college instructors and the professional staff of the employer. Such practicum experience rarely constitutes more than 20 percent of the certificate or degree requirements. The question of which auspices is "better" would have to be approached through a testing of skills and knowledge acquired and an accounting of options open to enrollees as well as records of actual job advancement.

Another area that New Careers advocates need to explore is job restructuring. It is asserted, analogous to post World War II industrial restructuring, that the process of job restructuring in the human services would serve more clients better at less cost, that it would permit entry and advancement by new types of personnel, and would produce more flexibility and new staffing patterns. Employers are often reluctant to begin

what might require considerable expenditure of time and money, and what might, from their point of view, not be worth it. Where the employer is a public agency or department, job restructuring requires legislative and administrative changes as well. Professional staff want to be shown that the new staffing patterns will indeed be more productive and efficient than current ones. And it is yet to be demonstated that the job advancement (vertical mobility) experienced by paraprofessionals in restructured organizations can be translated into horizontal mobility as well.

We could advance suggestions for additional studies ad infinitum. In fact, each suggestion leads to further ones:

1. Under what conditions and in what fields does horizontal mobility have more pay-off than vertical mobility?
2. How can we compare human services to other career-oriented (vocational) programs?
3. Which provides more pay-off: full-time education (including foregone benefits) followed by job placement, or a mix of the two with released time and other benefits?
4. Is a woman further ahead on ADC or working as a paraprofessional in the human service? What if there are small children requiring child care services? What is the net present value and what is the long-term benefit of the two choices?
5. What, if any, is the effect of unionization on measurable benefits received New Careerists?
6. How is scholarship money best allocated if the aim is to maximize the number of students in human services programs?
7. Are there costs of *not* restructuring?

Once the decision is made to go ahead with New Careers programs, it is fairly easy to lay out the types of further decisions to be made and to suggest studies that will aid in the allocation of resources. Economic studies then become important. It is doubtful, however, that such studies can help in arriving at the initial decision.

The huge social problems addressed by a New Careers scheme are indeed complex, interrelated, value-laden, and profound. The problems of unemployment, poor education, welfare dependency, insufficient and irrelevant social services, declining health services, growing population, racism and classism are so persistent and so massive that not even the most enthusiastic New Careers advocate can pretend to "solve" them, except on a very small, very local scale.

NOTES

1 See for examples: Abt, Clark C., "Design for an Education System Cost-Effectiveness Model"; Froomkin, Joseph, "Cost/Effectiveness and Cost/Benefit Analysis of Educational Programs"; Hansen, W. Lee and Burton A. Weisbrod, *Benefits, Costs, and Finance of Public Education:* Stager, David, "Monetary Returns to Post-Secondary Education in Ontario, 1960-64"; and Stromsdorfer, Ernst W. *et. al.*, "Vocational-Technical Education as an Investment."

2 See for examples: Becker, Gary S., *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education:* Borus, Michael E., "A Benefit-Cost Analysis of the Economic Effectiveness of Retraining the Unemployed"; and Stromsdorfer, Ernst W. and Geraid G. Somers, "A Benefit-Cost Analysis of Manpower Retraining."

3 For a more complete history, see Riessman, Frank and Hermine I. Popper, "The Evolutionary Revolution."

4 Human Services Manpower Career Center, "Health Occupations Training; A Profitable Public Investment," in *Manpower for Human Services,* March, 1970.

5 Gartner, Alan, *Do Paraprofessionals Improve Human Services: A First Critical Appraisal of the Data.*

6 See for examples, references in Bibliography for Ernst W. Stromsdorfer and for David Stager. Conceptualization of education as an investment is of relatively recent origin, a product of the late 1950s. It certainly warrants further exploration. Given the continued interest of such funding sources as UNESCO, Ford Foundation, U.S. Office of Education, and National Manpower Council, the investment model will probably occupy the attention of many economists.

7 Benson, Charles S., *The School and the Economic System.*

8 See Harman, W.G., "Three Approaches to Educational Resource Allocation." Constraints on development of New Careers Programs include many types of considerations: economic, political, technological, constitutional and other legal provisions, policy, administration, transportation, professional standards and restraints.

9 This is obviously not an exhaustive list of alternatives, nor are the options exclusive. It is hoped that the work being done by the Center for the Study of the Unemployed (School of Social Work, New York University) will map out such alternatives and facilitate this approach in the future.

10. Zimbalist, Sidney E. and Claire M. Anderson, "The Social Welfare Manpower Crisis Revisited: A Study of Personnel Needs in the Chicago Area."

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